

Application No. 10/772,771
Reply to Office Action of January 19, 2007

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Docket No.: 60674(49381)

REMARKS

In the Office Action dated January 19, 2007, claims 1, 2, 4-7, 9-12, 14-17, 19 and 20 are pending and all claims are rejected. Reconsideration is requested for at least the following reasons.

The present invention describes and, as set forth in claim 1, claims a sheet feeding apparatus comprising:

A sheet feeding apparatus comprising:

a sheet container for containing a plurality of stacked sheets;

an elevation/lowering driving unit for elevating and lowering the sheet container;

a sheet conveying unit for sequentially taking out the sheets from an uppermost layer put in contact with the sheet conveying unit by elevating the sheet container by the elevation/lowering driving unit and conveying the sheets to a predetermined conveyance path;

a regulating unit provided so as to be slidable on the sheet container for regulating a set position of a sheet;

a position detector for detecting a position of the regulating unit; and

a contact detector for detecting a contact state between the uppermost layer of the sheets contained in the sheet container and the sheet conveying unit,

wherein the elevation/lowering driving unit lowers the sheet container when a change in the position of the regulating unit is detected by the position detector in a state in which the uppermost layer of the sheets contacts the sheet conveying unit;

and further comprising:

a receiving unit for receiving information according to a lowered amount of the sheet container; and

a storage for storing the received information.

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wherein the elevation/lowering driving unit lowers the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit.

Claims 1, 2, 4-7, 9-12, 14-17, 19 and 20 are rejected under 35 U.S.C. §103(a) over Hattori et al. ("Hattori"; U.S. 6,091,927) in view of Hirota et al. ("Hirota"; U.S. 6,585,258). Applicants strongly disagree.

Neither Hattori, nor Hirota, nor their combination teach or suggest a sheet feeding apparatus having a receiving unit for receiving information according to a lowered amount of the sheet container; and a storage for storing the received information, wherein the elevation/lowering driving unit lowers the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit, as claimed herein.

The Examiner admits that Hattori *fails* to disclose a regulating unit positioned on the sheet container and, further, a position detector for detecting the position of the regulating unit. Hirota is cited for these deficiencies.

However, Hirota *fails* to teach or suggest a sheet feeding apparatus having a receiving unit for receiving information according to a lowered amount of the sheet container; and a storage for storing the received information, wherein the elevation/lowering driving unit lowers the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit, as claimed herein.

The Examiner states that

Hattori discloses a CPU (29) and a receiving unit (28) for receiving information according to the sensors positioned throughout the apparatus and storing the received information.

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However, that is not a teaching or suggestion for a receiving unit for receiving information according to a lowered amount of the sheet container; and a storage for storing the received information, wherein the elevation/lowering driving unit lowers the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit, as claimed herein.

The Examiner also states that

Hattori also discloses the sheet container (7) is lowered to its "preselected" position away from the sheet conveyance unit (8) when a signal is received to disengage the sheet container (7) from the roller (Col. 7, line 7).

However, at column 7, Hattori discloses lowering the bottom plate when a jam occurs *if* DF1 is not lifted. There is not even a hint of a suggestion, there in Hattori, for the elevation/lowering driving unit to lower the sheet container by the lowered amount stored in the storage **when the position detector detects a change in the position of the regulating unit**, as claimed herein.

Thus, Hattori, Hirota and their combination *fail* to teach or suggest the features of (1) the receiving unit for receiving the information according to the lowering amount of the sheet container and (2) the storage for storing the received information. Therefore, those skilled in the art could not realize the invention by taking account of the combination of Hattori and Hirota. Moreover, modifying the apparatus according to the combination of Hattori and Hirota and "configuring that, when the position of the regulating unit changes and the change is detected, as disclosed in Hattori, the sheet feeding unit 8 and sheet container 7 are put away from each other by the 'predetermined' amount, which is preset and stored in the receiving unit 28" would not have been obvious to those skilled in the art at the time when the present invention was made. Nothing in the record supports the examiner's assertion of obviousness.

Thus, the combination of Hattori and Hirota fails to disclose a sheet feeding apparatus comprising (1) a receiving unit for receiving information according to a lowered amount of the sheet container; and (2) a storage for storing the received

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information, wherein the elevation/lowering driving unit lower the sheet container by the lowered amount stored in the storage when the position detector detects a change in the position of the regulating unit, as set forth in claim 1. In the present invention, for example, the lowered amount of the document tray 22 can be a value which is arbitrarily set by a service person or a user through the operation section 46 in accordance with the number of documents frequently set in the document tray 22 in the normal and general usage state (page 24, lines 10 to 15). Thus, in the setting screen (of the operation unit 46) the lowered amount of the document tray 22 can be set (received) (Page 25, lines 20 to 23). Moreover, for example, the setting keys K17 and K18 are used for setting (receiving) the lowered amount of the document tray 22, and the content set in this setting screen is stored in the above-described storage (page 26, lines 19 to page 27, line 5).

On the contrary, Hattori describes, in the embodiment 3 (column 10, line 27 to column 11, line 56, in particular, column 11, pages 28 to 35), that in the case of the SADF mode the bottom plate 7 is lowered to an intermediate position (or SADF position) between the document feed position and the lowermost position (step S48). And the mode setting 38 allows the operator to select either one of an ADF mode (or standard mode) and an SADF mode (column 10, lines 35 to 40).

Hattori, however, does not teach or suggest that information according to a preselected position is stored in the storage such as RAM 28 when Hattori states "the bottom plate 7 is lowered to its preselected position (column 7, line 7)." (In column 4, lines 3 to 7, there is only a statement that a bottom plate sensor 34 determines whether or not the leading edge portion of the bottom plate 7 in the direction of the document feed, this statement having no operational or structural connection to the above-mentioned storage.) Further, Hattori does not recite the information according to a lowered amount of the sheet container or the storage for storing the received information as in the claimed features (1) and (2), set forth above.

Further, in Hirota, there is no configuration for lowering the paper feeding tray 2. Therefore, either the information according to a lowered amount of the sheet container or the storing the received information, of course, is not described by Hirota.

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Independent claims 6, 11 and 16 contain the same recitations as claim 1.

It is not seen how the presently claimed invention would have been obvious to one of ordinary skill in the art in view of any combination of Hattori and Hirota.

The Examiner asserts that Applicants' arguments have been against references individually and nonobviousness cannot be shown by attacking references individually when the rejections are based on combinations of the references. Applicants respectfully disagree that their arguments have been against references individually. Of course specific discussions may be directed to individual references because the Examiner has asserted that such reference teaches a specific component. Thus, Applicants have directed certain arguments to show the error in the Examiner's assertions. However, such arguments also prove that the component is not taught or suggested by the combination of references when it is not taught or suggested in either reference.

In view of the discussion above, Applicants respectfully submit that the pending application is in condition for allowance. an early reconsideration and notice of allowance are earnestly solicited.

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Respectfully submitted

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